

Session 21 : Modélisation du fonctionnement des écosystèmes en lien avec le climat

Biomass dynamic and carbon sequestration in a tropical forest

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Recent studies report pantropical above-ground biomass (AGB) increase, representing a carbon sequestration of $-0.8 \text{ Mg.C.ha}^{-1}\text{.yr}^{-1}$. Using a long term forest plot network in French Guiana (Paracou), we showed that positive carbon offset can be largely over-balanced by large and infrequent mortality events, resulting in no net carbon sequestration over a 16-yr period. Accounting for infrequent mortality events occurring at various spatial scales seemed to be a limit of small-scale plot (1 ha) network, that might only poorly reflect current forest response to global change.

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